

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1-82. (canceled)

83. (new) A micro-sonicator for spore or cell lysis comprising:  
a container having a cavity therein adapted to contain spore or cell samples,  
a quantity of ultrasonic transmission media in said cavity,  
at least a membrane positioned to cover said cavity,  
piezoelectric material positioned on said membrane, and  
means for causing flexing of said piezoelectric material and vibration of said  
membrane thereby causing ultrasonic excitation of the transmission media adapted to cause lysis  
of spore or cell samples in said cavity.

84. (new) In a micro-fluidic system, the improvement comprising:  
a micro-sonicator for spore and cell lysis using ultrasonic excitation of the spore  
or cell, said micro-sonicator including a container having a cavity therein and containing  
ultrasonic transmission media, a membrane positioned over said cavity, and means for causing  
vibration of said membrane producing ultrasonic excitation of spore or cell located in said cavity.

85. (new) A device for spore or cell lysis comprising:  
a container having a chamber for holding spore or cell samples,  
a quantity of ultrasonic transmission media in said chamber,  
a membrane forming at least one wall of the chamber, and  
an ultrasonic transducer in contact with said membrane for transmitting ultrasonic  
waves to the chamber.